

WHAT IS CLAIMED IS:

1. A digital matched filter for despreading on reception side a received signal sequence having been spread on transmission side, comprising:

received signal holding means for successively holding a  
5 predetermined number of samples among samples constituting said received signal sequence input in time-series manner;

spreading code generating means for generating a spreading code sequence for said despreading; and

10 correlation value calculating means for calculating a correlation value between said predetermined number of samples held in said received signal holding means and said generated spreading code sequence,

said correlation value calculating means including

15 first product-sum calculating means for calculating a correlation value between a part of the predetermined number of samples held in said received signal holding means and spreading codes corresponding to said part of samples in said generated spreading code sequence,

20 second product-sum calculating means for calculating a correlation value between the rest of samples of the predetermined number of samples held in said received signal holding means and spreading codes corresponding to said rest of samples in said generated spreading code sequence, and

25 decision means for deciding whether the correlation value output from said first product-sum calculating means exceeds a predetermined threshold value to stop calculation by said second product-sum calculating means when said decision means decides that the correlation value output from said first product-sum calculating means does not exceed said predetermined threshold value.

2. A digital matched filter for despreading on reception side a received signal sequence having been spread on transmission side, comprising: